## Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

 (Currently Amended) An anti-reflection film material used in lithography which contains at least a polymer compound having repeating units for copolymerization represented by the following general formula (1): (1):

$$\frac{\bigcap_{s \mid O_{(3-m)^2}}^{R^1} \bigcap_{a \mid 1}^{R^2} \bigcap_{b \mid O_{(3-m)^2}}^{R^2} \bigcap_{b \mid 1}^{R^3} \bigcap_{c \mid O_{(3-p)^2}}^{R^3} \bigcap_{c \mid 1}^{(1)}$$

(-In the formula, wherein  $\mathbb{R}^1$  is a monovalent organic group having a crosslink group,  $\mathbb{R}^2$  is a monovalent organic group having a light-absorption group, and  $\mathbb{R}^3$  is a monovalent organic group which has at least one functional group selected from the group consisting of carbonyl, ester, lactone, amide, ether, and nitrile.—nitrile: a1, b1 and c1 are 0 < a1 < 1, 0 < b1 < 1, 0 < c1 < 1, and  $0.5 \le a1 + b1 + c1 \le 1$ . Each  $0.5 \le a1 + b1 + c1 \le 1$ : each of  $\mathbb{R}^4$ ,  $\mathbb{R}^5$  and  $\mathbb{R}^6$  is a hydrogen atom, a hydroxy group, an alkyl group having 1-6 carbon atoms, an aryl group having 6-10 carbon atoms, or a fluorinated alkyl group having 1-6 carbon atoms. Each atoms: Each atoms: and each of m, n and p is 0 or 1.

(Currently Amended) An anti-reflection film material used in lithography
which contains at least a polymer compound having repeating units for
copolymerization represented by the following general formula (2) and a polymer
compound having repeating units for copolymerization represented by the following
general formula (3):

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$$\begin{array}{ccc}
\begin{pmatrix}
R^1 & & & R^2 \\
-\left(\begin{array}{c} SiO_{(3-m)/2} \\ R^4_m & & a2 \end{array}\right) & & -\left(\begin{array}{c} R^2 \\ SiO_{(3-m)/2} \\ R^5_n & & b2 \end{array}\right) \\
R^1 & & & R^3
\end{array}$$
(2)

- (Original) The anti-reflection film material according to Claim 1 which further contains an organic solvent and/or an acid generating agent.
- (Original) The anti-reflection film material according to Claim 2 which further contains an organic solvent and/or an acid generating agent.
- (Original) The anti-reflection film material according to Claim 1 which further contains a crosslinking agent.
- (Original) The anti-reflection film material according to Claim 2 which further contains a crosslinking agent.

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- 7. (Original) The anti-reflection film material according to Claim 1 wherein the light-absorption group in the repeating unit of the polymer compound contained in the anti-reflection film material is an aromatic group or a group having a Si-Si bond.
- 8. (Original) The anti-reflection film material according to Claim 2 wherein the light-absorption group in the repeating unit of the polymer compound contained in the anti-reflection film material is an aromatic group or a group having a Si-Si bond.
- Original) A substrate which has at least an anti-reflection film obtained by baking the anti-reflection film material according to Claim 1 on the substrate.
- 10. (Original) A substrate which has at least an anti-reflection film obtained by baking the anti-reflection film material according to Claim 2 on the substrate.
- 11. (Original) A method for forming a pattern on a substrate by lithography comprising at least applying to the substrate an anti-reflection film material according to Claim 1 and baking the anti-reflection film material to form an anti-reflection film, applying to the anti-reflection film a photoresist film material and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, and etching the anti-reflection film and the substrate with using as a mask the photoresist film on which the resist pattern is formed to form a pattern on the substrate.
- 12. (Original) A method for forming a pattern on a substrate by lithography comprising at least applying to the substrate an anti-reflection film material according to Claim 2 and baking the anti-reflection film material to form an anti-reflection film, applying to the anti-reflection film a photoresist film material and pre-baking the

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photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, and etching the anti-reflection film and the substrate with using as a mask the photoresist film on which the resist pattern is formed to form a pattern on the substrate.

- 13. (Original) A method for forming a pattern on a substrate by lithography comprising at least applying to the substrate an anti-reflection film material according to Claim 1 and baking the anti-reflection film material to form an anti-reflection film, applying to the anti-reflection film a photoresist film material and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, etching the anti-reflection film with using as a mask the photoresist film on which the resist pattern is formed, and etching the substrate with using as a mask the anti-reflection film on which the pattern is formed, to form a pattern on the substrate.
- 14. (Original) A method for forming a pattern on a substrate by lithography comprising at least applying to the substrate an anti-reflection film material according to Claim 2 and baking the anti-reflection film material to form an anti-reflection film, applying to the anti-reflection film a photoresist film material and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, etching the anti-reflection film with using as a mask the photoresist film on which the resist pattern is formed, and etching the substrate with using as a

mask the anti-reflection film on which the pattern is formed, to form a pattern on the substrate.

- 15. (Original) A method for forming a pattern on a substrate by lithography comprising at least, forming an organic film on the substrate, applying to the organic film the anti-reflection film material of Claim 1 and baking the anti-reflection film material to form an anti-reflection film, applying a photoresist film material to the anti-reflection film and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, etching the anti-reflection film using as a mask the photoresist film on which the resist pattern is formed, etching the organic film using as a mask the anti-reflection film on which the pattern is formed, and etching the substrate to form a pattern on the substrate.
- 16. (Original) A method for forming a pattern on a substrate by lithography comprising at least, forming an organic film on the substrate, applying to the organic film the anti-reflection film material of Claim 2 and baking the anti-reflection film material to form an anti-reflection film, applying a photoresist film material to the anti-reflection film and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, etching the anti-reflection film using as a mask the photoresist film on which the resist pattern is formed, etching the organic film using as a mask the anti-reflection film on which the pattern is formed, and etching the substrate to form a pattern on the substrate.

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